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| APPLICATION NO.               | FILING DATE         | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|-------------------------------|---------------------|----------------------|-------------------------|------------------|--|
| 10/530,616                    | 04/07/2005          | Patrice Bujard       | 4-22763/A/PCT           | 7004             |  |
| 324<br>JoAnn Villam           |                     | 08/2008              | EXAM                    | EXAMINER         |  |
| Ciba Corporat                 | tion/Patent Departm | FLETCHER II          | FLETCHER III, WILLIAM P |                  |  |
| 540 White Pla<br>P.O. Box 200 |                     | ART UNIT             | PAPER NUMBER            |                  |  |
| Tarrytown, NY 10591           |                     |                      | 1792                    | <u> </u>         |  |
|                               |                     |                      |                         |                  |  |
|                               | •                   |                      | MAIL DATE               | DELIVERY MODE    |  |
|                               |                     |                      | 01/08/2008              | PAPER            |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  | Application No.   | Applicant(s)      |  |  |  |
|--|---|-------------------|--|--|--|
|  | 10/530,616  | BUJARD ET AL.     |  |  |  |
| Office Action Summary  | Examiner  | Art Unit          |  |  |  |
|  | William P. Fletcher III   | 1792              |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address  |   |                   |  |  |  |
| Period for Reply   |   |                   |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |                   |  |  |  |
| Status   |   |                   |  |  |  |
| 1) Responsive to communication(s) filed on 21 De   | ecember 2007.   |                   |  |  |  |
| · —  | This action is <b>FINAL</b> . 2b)⊠ This action is non-final.  |                   |  |  |  |
|  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is |                   |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |   |                   |  |  |  |
| Disposition of Claims  |   |                   |  |  |  |
| 4) Claim(s) 4 and 5 is/are pending in the application.   |   |                   |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |                   |  |  |  |
| 5) Claim(s) is/are allowed.  |   |                   |  |  |  |
| 6)⊠ Claim(s) <u>4 and 5</u> is/are rejected.   |   |                   |  |  |  |
| 7) Claim(s) is/are objected to.  |   |                   |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | r election requirement.   |                   |  |  |  |
| Application Papers   |   |                   |  |  |  |
| 9) The specification is objected to by the Examiner.   |   |                   |  |  |  |
| 10) The drawing(s) filed on is/are: a) □ acce  | epted or b) $\square$ objected to by the E  | Examiner.         |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |                   |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |                   |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |                   |  |  |  |
| Priority under 35 U.S.C. § 119   |   |                   |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  |   |                   |  |  |  |
| a) All b) Some * c) None of:   |   |                   |  |  |  |
| 1. Certified copies of the priority documents have been received.  |   |                   |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |   |                   |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage  |   |                   |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.  |   |                   |  |  |  |
| See the attached detailed Office action for a list of the certified copies not received.   |   |                   |  |  |  |
|  |   |                   |  |  |  |
|  |   |                   |  |  |  |
| Attachment(s)  1) Notice of References Cited (RTO 902)   |   |                   |  |  |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date   |   |                   |  |  |  |
| 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date   | 5) Notice of Informal P   | atent Application |  |  |  |
|  | -, <b>-</b> ,   |                   |  |  |  |

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### **DETAILED ACTION**

### Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 21, 2007, has been entered.

### Response to Amendment

2. Claims 4 and 5 remain pending.

# Allowable Subject Matter

3. Upon further consideration of the teaching of Bujard et al., the indicated allowability of claims 4 and 5 is withdrawn.

## Claim Rejections - 35 USC § 103

- 4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the

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inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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- 6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bujard et al. (US 5,766,335 A) in view of Pelzig (US 4,956,404 A).
  - A. The combination of Bujard and Pelzig would have been obvious to one of ordinary skill in the art, as explained in the prior Office actions.
  - B. With specific respect to claim 4, as noted in paragraph 13C of the Office action mailed February 7, 2007, Bujard's Example 35 teaches the following structure:

which anticipates the structure recited in this claim:

where  $0.03 \le x = 0.41 \le 0.95$ .

- 7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bujard in view of Pelzig, as applied to claim 4 above, and further in view of Ramaswami et al. (US 6,315,384 B1) or Yamazaki et al. (US 2002/0043662 A1).
  - A. Bujard teaches that, instead of Al in the above structure, Si may be used [3:33-40].

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B. It is the Examiner's position that a silicon surface, under normal, ambient conditions, has, on the surface thereof, a layer of native oxide. Ramaswami attests to the presence of this native oxide in polycrystalline silicon [39:55-40:27] and Yamazaki attests to the presence of this native oxide in amorphous silicon as well [0156].

C. Since Bujard is silent with respect to any active steps to prevent/remove such a native oxide, it is the Examiner's position that, in the process of Bujard where Si is used, said silicon will inherently posses a native oxide film, with a structure  $SiO_x$ , where x ranges from 1-2 — as evidenced by Ramaswami and Yamazaki — thereby satisfying the claimed structures:

SiO,/SiO,/SiO,/SiO,

and

SiO<sub>2</sub>/SiO<sub>x</sub>/SiO<sub>2</sub>/SiO<sub>x</sub>/SiO<sub>2</sub>.

### Conclusion

8. The prompt development of clear issues in the prosecution history requires that applicant's reply to this Office action be fully responsive (MPEP § 714.02). When filing an amendment, applicant should specifically point out the support for any amendment made to the disclosure, including new or amended claims (MPEP §§ 714.02 & 2163). A fully responsive reply to this Office action, if it includes new or amended claims, must therefore include an explicit citation

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(i.e., page number and line number) of that/those portion(s) of the original disclosure which applicant contends support(s) the new or amended limitation(s).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 0900h-1700h.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pairdirect.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/William Phillip Fletcher III/

Primary Examiner

January 1, 2008